

Monday, April 23

*If you did not write your test on Thursday or pass in your assignment you need to come see me asap.

Today:

- We're starting a new unit (Measurement)
- We will look at the system of measurement and at some conversions
- Notes/Practice questions

Systems of Measurement

- In Canada, we use two systems of measurement: System International and the Imperial System. We use SI (metric) most often in our daily lives, but the imperial system is used in many trades.

The metric system was formally developed by France in the 1700's. The system is based on the linear measure of a metre which was defined in terms of the Earth's circumference, and on base 10. Mass was based on the gram, defined as the mass of one cubic centimetre of water.

In Canada in the 1970's, with rapidly advancing technology and expanding worldwide trade, the Canadian government adopted a policy for a single, coherent measurement system based on the *Système International d'Unités* (SI), the latest evolution of the metric system.

- In the SI, the base unit for measuring length is the metre (m) and the base unit for measuring volume is the litre (l). For measuring mass, the base unit is the gram (g).

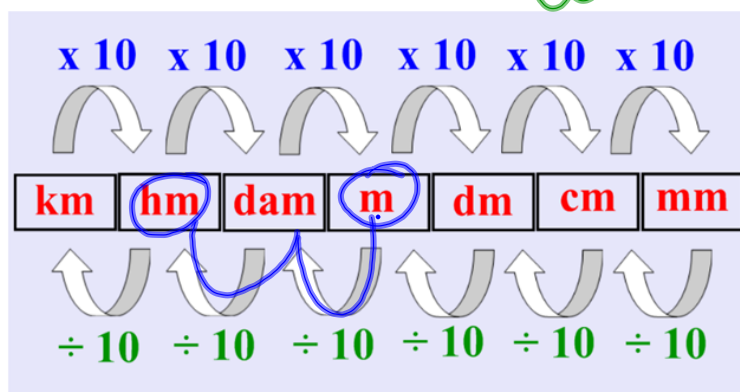
The SI units most commonly used:

- Distances (kilometres or km)
- Fuel economy (L/100km)
- Meat or fish (kg)
- Milk or juice (L)
- Cloth (metres or m)
- Temperature (°C)
- carpet lengths (m)
- Volumes of beakers in science class (100mL or 200mL)

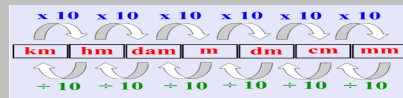
UNIT PREFIXES:

k	:	kilo
h	:	hecto
da	:	deca
d	:	deci
c	:	centi
m	:	milli

$$236\text{m} = 2.36\text{ km}$$



*** the m stands for meters, but can be exchanged for a g (which stands for grams) and an L (which stands for litres)



SI Exercise

- A) 3 metres = _____ centimetres
- B) 40 litres = _____ decilitres
- C) 600 milligrams = _____ grams
- D) 5 kilometres = _____ hectometres
- E) 70 centimetres = _____ metres
- F) 900 decilitres = _____ decalitres
- G) John's pet python measured 600 centimetres long. How many metres long was the snake?
- H) Faith weighed 5 kilograms at birth. How many grams did she weigh?
- I) Jessica drank 4 litres of tea today. How many decilitres did she drink?

- In the imperial system, the base unit for measuring length is the foot and the base unit for measuring volume is the pint.

Imperial Relationships

12 inches (in. or ") = 1 foot (ft. or ')

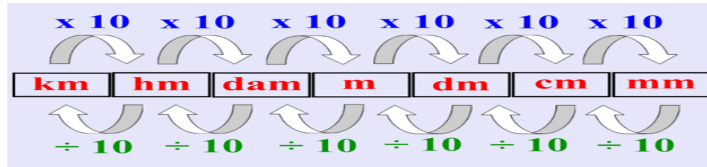
3 feet = 1 yard (yd.)

1760 yards = 1 mile (mi.)

5280 feet = 1 mile

Mental Math Question

In 1995, while playing for the Mount Allison Mounties, Eric Lapointe ran the ball for 311 yards. How many feet is that?



Metric Conversion Exercise

- 1) 60 mm = _____ m
- 2) 579 000 000 mm = _____ km
- 3) 0.934 cm = _____ mm
- 4) 0.6921 m = _____ km
- 5) 20 800 000 cm = _____ km
- 6) 758.0048 m = _____ mm
- 7) 21 200 cm = _____ m
- 8) 0.0000072 km = _____ mm
- 9) 172.14 cm = _____ m
- 10) 9.000658 km = _____ cm
- 11) 0.00004 km = _____ m
- 12) 315 m = _____ mm
- 13) 161 000 000 mm = _____ km
- 14) 809.008288 km = _____ cm
- 15) 390 cm = _____ mm
- 16) 57 700 000 cm = _____ km
- 17) 863.05 m = _____ mm
- 18) 46.3 mm = _____ km
- 19) 203 m = _____ cm
- 20) 6940 mm = _____ cm